

**EPA Superfund
Record of Decision:**

**ESCAMBIA WOOD - PENSACOLA
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Record of Decision

Interim Remedial Action and

National Relocation Pilot Project

Escambia Treating Company Site

Pensacola, Escambia County, Florida

Prepared By:

U.S. Environmental Protection Agency

Region IV

Atlanta, Georgia

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RECORD OF DECISION

DECLARATION

SITE NAME AND LOCATION

Escambia Treating Company Site
Pensacola, Escambia County, Florida

STATEMENT OF BASIS AND PURPOSE

This decision document presents the National Relocation Pilot Project and the selected interim remedial action at the Escambia Treating Company Site (ETC), Pensacola, Escambia County, Florida, which has been chosen in accordance with the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments Reauthorization Act of 1986 (SARA), 42 U.S.C. § 9601 et seq., and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR Part 300. This decision is based on the Administrative Record file for this site.

The State of Florida, as represented by the Department of Environmental Protection (FDEP), has been the support agency during the Remedial Investigation/Feasibility Study process for the ETC site. In accordance with 40 C.F.R. § 300.430, FDEP, as the support agency, has provided input during this process. FDEP has concurred with this decision.

ASSESSMENT OF THE SITE

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action selected in the Record of Decision (ROD), may present an imminent and substantial endangerment to public health, welfare, or the environment.

DESCRIPTION OF THE REMEDY

This remedy is an interim action for the site. It addresses the relocation of households affected by the contamination at the site. The major components of the selected remedy include:

- Permanent relocation of an estimated 358 households from the Rosewood Terrace subdivision, the Oak Park subdivision, the Escambia Arms Apartments, and the Goulding subdivision.
- Demolition of the homes, and institutional controls to restrict the land use of the area to industrial or commercial use.

The remedy is based on the following factors: health risk reduction, community welfare, cost benefit and operational concerns, configuration of the land area, as well as long term community development goals.

A subsequent remedy will address soil contamination on the Site and in the former residential areas.

STATUTORY DETERMINATION

The selected remedy is protective of human health and the environment, is cost effective, and it complies with Federal and State requirements that are legally applicable or relevant and appropriate to the remedial action. This remedy utilizes permanent solutions and alternative treatment (or resource recovery) technologies to the maximum extent practicable. The statutory preference for remedies that employ treatment that reduces toxicity, mobility, or volume as a principal element will be addressed by the final response action for the site.

Finally, this alternative would provide the best balance among the nine criteria EPA is required to consider under the National Contingency Plan (NCP).

1.0 SITE NAME, LOCATION, AND DESCRIPTION

The Escambia Treating Company (ETC) site is located at 3910 North Palafox Street in the City of Pensacola, Escambia County, Florida at approximately 30° 27' 19" north latitude and 87° 13' west longitude. The 26-acre ETC site, located in a mixed industrial and residential area, is bordered on the north by residential neighborhoods, on the west by Palafox Street, on the east by the a Railroad Switchyard, and on the south by an abandoned concrete plant and small industrial park. The site is an abandoned wood preserving facility that operated from 1942 until its closing in 1982. Figures 1 and 2 show the ETC site location.

2.0 SITE HISTORY AND ENFORCEMENT ACTIVITIES

The ETC site was first operated in 1942 as a manufacturing facility for the treatment of wood products with creosote. Before the start of operations, the land was used for farming. ETC's Pensacola facility was involved in the pressure-treating of wood products, primarily utility poles and foundation pilings. Southern Yellow Pine was debarked, formed, dried, impregnated with preservatives, and stored at the facility until delivered to customers. From 1944 to approximately 1970, coal-tar creosote was used as the primary wood preservative. Pentachlorophenol or PCP dissolved in No. 6 diesel fuel was used at the facility as a preservative from 1963, and was the sole preservative in use from 1970 to 1982. Excess wood preservative was allowed to drain from the treated products along drip tracks before on-site storage in nine treated wood storage areas.

Contaminated waste water and runoff from the former treatment area were the primary wastes managed at the facility. In the early years of operation, all wastewater was sent to an unlined impoundment located in the northeastern part of the site. This natural earthen unit was used from the mid-1940s through the mid-1950s. After the mid-1950s, process waste water and contaminated runoff were managed by two separate systems. Process waste water was initially managed by an oil/water separator to recover treating chemicals and process water for reuse in the wood-treating process. The system consisted of two concrete and treated wood impoundments. The former "hot" and "cold" ponds, each used from 1955 to 1982, and with a holding area of 6250 cubic feet, operated in series. The "hot" pond received waste water laden with PCP and creosote before its discharge via shower heads into the "cold" pond. The shower heads cooled the water, volatilizing some of the organic constituents. Water from this unit was discharged to the Pensacola sanitary sewer system or pumped back into the process vacuum line.

The contaminated runoff from the treatment area was directed into a runoff collection/separation system. This system consisted of a concrete collection pad and a series of separation basins, which removed waste treating solutions from the runoff water. Runoff was then pumped via a storm drain system to an impoundment located in the southern section of the facility. The impoundment, which was constructed of sectionally poured concrete, had a holding capacity of 225,000 gallons. Wastewater in the impoundment, also known as the "swimming pool", was allowed to evaporate, and the remaining content was discharged to the Pensacola sanitary sewer system.

The ETC site has a lengthy regulatory history that begins with the submittal of the Notification of Hazardous Waste Activity Form (CERCLA 103C) to EPA in 1980. Before this submittal and the passing of the Resource Conservation and Recovery Act (RCRA), little available documentation was generated regarding compliance and non-compliance with federal, state, and county rules and regulations.

As required under the notification provision of RCRA, a Part A Permit Application was submitted

by ETC on November 18, 1980 to the Florida Department of Environmental Regulation (FDER) for a permit to operate a hazardous waste storage facility engaged in the storage of K001 Wood Preservative waste. Under 40 CFR Part 261.32, K001 Wood Preservative waste is defined as "bottom sediment sludge from the treatment of waste water from wood preserving processes that use creosote and/or pentachlorophenol". Although ETC ceased operation in October 1982, three surface impoundments at the facility that contained K001 sludge and wastewater required permitting and closure.

ETC applied to the State of Florida for a Temporary Operating Permit (TOP) on April 11, 1983. The permit required ETC to submit a modified closure plan, groundwater monitoring plan, and statistical analysis of groundwater samples. The facility submitted a revised closure plan for the surface impoundments in March 1985.

On August 20, 1985, EPA issued a Warning Letter to ETC regarding violation of the RCRA financial requirements. The warning letter was followed by a Notice of Violation (NOV) on September 15, 1985, resulting from the facility's failure to respond to the Warning Letter. The major violations cited in the NOV dealt with the groundwater program and the failure to provide financial assurance.

During the month of September 1985, in accordance with the TOP, the facility removed sludge from the three surface impoundments and transported them off-site to a hazardous waste facility in Alabama. Additionally, during this period another NOV was issued that addressed groundwater and financial violations.

From 1985 to 1989, various violations were noted at the facility and enforcement actions were taken by EPA and FDEP. In April 1989, EPA conducted a compliance evaluation inspection at the ETC site, and noted several violations.

In June of 1990, EPA conducted a preliminary review and visual site inspection during a RCRA Facility Assessment (RFA) to identify Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs). The RFA was conducted pursuant to the Hazardous and Solid Waste Amendments (HSWA) of 1984, which expanded EPA's authority under RCRA to require corrective action for releases of hazardous waste or hazardous constituents from SWMUs for facilities such as ETC that sought a RCRA permit.

After the RFA, the EPA Environmental Response Team was activated by EPA Region 4 to perform a preliminary assessment of the site. The information obtained during this investigation indicated that a removal action was needed to address contamination at the site. In October 1991, EPA began a removal action to excavate all materials of concern and to estimate the amount of material to be dealt with in future phases. The removal action was completed in 1992. The excavated material (225,000 cubic yards) is currently stockpiled under secure cover on-site. EPA proposed the site for inclusion on the National Priorities List (NPL) in August 1994. After a 60-day public comment period, the site's listing on the NPL was finalized on December 16, 1994.

3.0 HIGHLIGHTS OF COMMUNITY PARTICIPATION

All requirements for public participation under CERCLA Sections 113(k)(2)(B)(I-v) and 117 were met in the remedy selection process. Some residents have formed a community group known as Citizens Against Toxic Exposure (CATE). CATE works to express and resolve community concerns such as health problems that may have resulted from removal activities, loss of property value, relocation of residents, and disposal of excavated soil. CATE received a Technical Assistance Grant (TAG) for the ETC site.

In November 1994, a Community Working Group, was organized at the ETC site. The goals for this working group were to improve communication and build trust between EPA and the community, as well as provide the community with a meaningful role in EPA's decision-making process at the site.

Informational Fact Sheet Updates have been published and distributed to interested parties at the Site. These have been used to keep the public informed of response activities. EPA maintains an information repository at the West Florida Regional Library which contains the Administrative Record and other information about the Site.

4.0 SCOPE AND ROLE OF ACTION

This ROD addresses the relocation of approximately 358 households in neighborhoods surrounding the ETC Site (hereafter, the "Relocation Area") as shown in Figure 3. The affected residential areas are: the Rosewood Terrace subdivision, the Oak Park subdivision, the Escambia Arms apartments (Figure 4), and the Goulding subdivision (Figure 5).

In June 1995, EPA nominated the Escambia site as part of a National Relocation Evaluation Pilot. In addition to providing for early consideration of relocation at the Escambia site, the pilot efforts will also be used by EPA to assist in the development of a national relocation policy. The objective of this policy is to determine when relocation should be used in addressing the health threats posed by Superfund sites in a way that reflects community interests, while at the same time making cost-effective and technically sound remedial decisions.

EPA has examined the full range of remedial options available to address the overall impact of Site conditions on the community. The interaction of the following factors, not any single factor makes relocation the correct remedial decision for the ETC site:

1. EPA has identified health risks due to the presence of 2,3,7,8-TCDD (dioxin) and benzo(a)pyrene (BaP) in portions of the Relocation Area.
2. The adverse impacts on the residents of the Relocation Area from fear stemming from uncertainty relative to health impacts, loss of property values, and psychological stress, are difficult to quantify but are very real considerations. These concerns have arisen in part from the visibility of an extremely large stockpile of highly contaminated soil and two excavations of similar magnitude. The excavations and stockpile are the result of the 1991-92 removal action in the immediate vicinity of the Relocation Area.
3. In addition to the risks posed by contamination in portions of the Relocation Area, final remediation activities on the site are also expected to further adversely affect the Relocation Area through operational issues such as truck traffic, noise, dust, equipment staging, and other impacts.
4. Removing the residents in the Relocation Area will provide greater flexibility for final remedy selection with a significant potential for lowering overall project costs. The cost savings are enhanced by obviating the need to remediate soil in residential areas to residential risk levels.
5. The residential areas in the Relocation Area are discreet, well defined, and located in

a commercial area. The existing land use and transportation infrastructure strongly indicates the appropriate use of the property is as industrial property. In addition, the relocation will provide land for industrial purposes that is valuable to the community from an economic development perspective.

The factors listed above, combined with a concern for the overall welfare of the community, justifies relocation of the residents of the Relocation Area in furtherance of the objectives of the National Relocation Pilot Project. The uniqueness of the site and the interaction of the many factors present here does not, in EPA's opinion, create a precedent for relocation at other Superfund sites.

This interim action will be consistent with any planned future remedial actions, to the extent possible.

5.0 SUMMARY OF SITE CHARACTERISTICS

According to the 1990 census, the population of Pensacola was 58,165. The population of Escambia County was listed as 262,798. The nearest homes are directly adjacent to the site and the SWMU 10 excavation area on the northwest boundary of the site. Some of these homes are within 15 feet of the excavated area. The residential areas nearest the site, Rosewood Terrace, Oak Park, Goulding, and Escambia Arms, consist primarily of African-American communities.

Additional demographic data indicate that minorities make up 60 to 100 percent of the total population within a one mile radius of the site. In comparison, most other areas of Escambia County have minority populations that range from 0 to 10 percent of the total. Thirty to 70% of the population within a one mile radius of the site has not completed high school. In comparison, in most other areas of Escambia County, the percentage of the population that has not completed high school ranges from 0 to 30%. Thirty to 70% of the people within a one mile radius of the site live below the poverty level. In comparison, 0 to 30% of the population in other areas of Escambia County live below the poverty level.

The Rosewood Community is located immediately adjacent to the ETC site. The community is bordered to the west by Palafox Highway, the south by the former Escambia Treating Company, and the east by a Railroad Switchyard. The Oak Park community and the Escambia Arms apartments are located just north of the Rosewood Terrace subdivision across Hickory Street. The Florida Drum Manufacturing Company, an industrial facility, is located within the Oak Park community between the residential area and the railroad to the east. There are approximately 200 families living in the Escambia Arms apartments.

The Goulding subdivision is located immediately south of the Palafox Industrial Park, which is immediately south of the site. The Seaboard System Railroad is located immediately to the east. Beyond the railroad is the Agrico Chemical Superfund site. The community is bordered to the west by Palafox Highway, and to the south by East Fairfield Drive.

5.1 Residential Sampling Results

In July 1995, EPA conducted an extensive residential sampling effort to determine whether off-site soil in residential areas had been affected by the ETC site. Residential areas north and south of the site were subdivided into equal-sized grids (approximately 225 ft x 225 ft), and composite soil samples from these grids were collected and analyzed for a wide range of chemicals. The composite samples combined small amounts of soil from several locations within a sampling grid, providing an average of the chemical concentrations within that grid. Composite samples were collected from seventy-five grids. In addition, to accommodate community concerns, EPA collected and analyzed over 40 grab samples from locations and materials selected by the

technical advisor for CATE. The composite and grab sampling results are summarized in the following paragraphs.

5.1.1 Composite Sampling Results

Rosewood Terrace

BaP contamination in Rosewood Terrace ranged from .00004 ppm to 0.068 ppm. The highest concentrations were found in a grid near the SWMU 10 excavation. Dioxin concentrations in Rosewood Terrace ranged from .026 ppb to .607 ppb in the grid samples. The highest dioxin concentrations were found in three grids 30, 40 and 41. Arsenic concentrations ranged from 2.1 ppm to 3.2 ppm.

Oak Park

BaP contamination ranged from 0.0002 ppm to 0.127 ppm with the highest concentrations found in grid number 30, just north of the SWMU 10 excavation. Dioxin contamination in the Oak Park subdivision ranged from .0036 to .024 ppb. No significant arsenic contamination was found in Oak Park.

Escambia Arms

BaP contamination in the Escambia Arms soil ranged from 0.005 ppm to 1.133 ppm with the highest concentrations found in the courtyard. Dioxin contamination in the soil around the Escambia Arms Apartments ranged from 0.0008 ppb to 0.012 ppb. Arsenic concentrations ranged from 2.3 ppm to 7 ppm.

Goulding Subdivision (AKA Pearl Street and Herman Avenue area)

BaP contamination in the Goulding subdivision ranged from 0.004 ppm to 24.7 ppm. The highest concentrations were found in the central to eastern portion of the subdivision.

5.1.2 Community Dioxin Grab samples

Dioxin concentrations from grab samples found in the Rosewood Terrace neighborhood ranged from .219 ppb to 2.956 ppb. The result of the dioxin grab sample in Oak Park was a concentration of .0088 ppb. Dioxin samples collected in the northern portion of the Goulding subdivision ranged from 0.00046 ppb to 0.125 ppb. A surface sample which was detected at 0.01436 ppb had a corresponding subsurface sample with a concentration of 0.125. No grab samples were collected for dioxin in the Escambia Arms Apartments.

5.1.3 Lead

Lead was detected at various concentrations during the investigation. Lead concentrations above EPA's screening level of 400 ppm were detected in four sampling grids in the Goulding subdivision. The highest lead concentration (8,700 ppm) was detected in a fenced, non-residential property on the corner of Hermann Avenue and Palafox. This contamination appears to be related to activities carried out by the owner rather than the Escambia site, so EPA has forwarded the data to the Removal Assessment Team for follow up action. No significant lead contamination was found in any other residential areas.

5.2 Summary

In general, EPA Superfund regulations specify that EPA may consider taking action at a site when

cancer risks exceed the 1×10^{-4} level. EPA may elect to develop cleanup levels which will migrate that cancer risk in a range from 1×10^{-4} to 1×10^{-6} . Based on preliminary evaluation, EPA has determined that some levels of BaP and dioxin exceed the 1×10^{-4} risk in the Relocation Area.

Historical aerial photographs and topographic maps of the area indicate that the BaP and dioxin contamination found in the neighborhoods north and south of the site are a result of surface water drainage and erosion from treated lumber storage areas and waste water discharges at the ETC site. In 1996, in response to concerns that there may have been a contributing source of contamination in the Palafox Industrial Park, EPA conducted a site assessment in the Park. The site assessment indicated that the Park is not a source of the contamination.

6.0 SUMMARY OF SITE RISKS

As part of the Remedial Investigation and Feasibility Study (RI/FS) process, EPA will conduct a risk assessment for the ETC site to evaluate the risks to human health and the environment associated with site contamination. Since the pilot project and interim action are being conducted prior to the completion of the RI/FS, a full risk assessment has not yet been completed for the ETC site.

At this preliminary stage, rather than basing the remedial action on specific remediation goals, EPA has determined that the relocation of the residents in the Relocation Area will effectively prevent further exposure of the residents to the contaminants.

Actual or threatened releases of hazardous substances from portions of this site, if not addressed by implementing the response action selected in this ROD, may present an imminent and substantial endangerment to public health, welfare, or the environment.

7.0 DESCRIPTION OF REMEDIAL ACTION ALTERNATIVES

Under the relocation evaluation pilot, EPA developed two alternatives to address the potential threat posed by off-site soil contamination in residential areas near the Escambia site. A brief description of each alternative is provided here. Additional explanation can be found in the Cost Estimate for Interim Remedy Alternatives, December 1, 1995, contained in the Administrative Record file located at the Information Repository.

ALTERNATIVE 1

No Action

The National Contingency Plan (NCP) requires the development of a no action alternative as a basis for comparison to other alternatives. Under the no action alternative, no funds are expended for monitoring, control, cleanup activities or relocation of residents to address conditions caused by the Site.

PRESENT WORTH COST: \$0

ALTERNATIVE 2

Permanent Relocation

- Permanent relocation of approximately 358 households in Rosewood Terrace subdivision, the Oak Park subdivision the Escambia Arms apartments and the Goulding subdivision.

- Demolition of structures and off-site disposal of debris.
- Controls, as necessary, to restrict access to the property to prevent further residential use.

Properties will be purchased and residents relocated in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (URA).

The costs of permanent relocation of the residential areas under Alternative 2 are \$23,577,101

8.0 COMPARISON OF ALTERNATIVES

In this section, the performance of EPA's preferred interim action alternative is evaluated to determine how well it meets each of the nine evaluation criteria listed below as compared with the other alternatives.

8.1 THRESHOLD CRITERIA

Overall Protection of Health and the Environment

By relocating the residents, Alternative 2 will prevent exposure to contaminants and will address the factors enumerated in Sections 4 and 9.

Alternative 1 does not protect residents from exposure to contaminants in portions of the Relocation Area and is therefore not protective of human health. It also does not address the other concerns, enumerated in Sections 4 and 9, related to the effects of the Site on residents of the Relocation Area.

Compliance with Federal/State Requirements (ARARs)

Alternative 2 will be implemented in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (URA).

Alternative 1 would not require relocation and thus compliance with the URA. NO other ARARs are implicated.

8.2 PRIMARY BALANCING CRITERIA

Long-Term Effectiveness and Permanence

Alternative 2 is effective in the long-term since residents will be permanently removed, and thereby protected from Site contamination and other Site impacts.

The use of the property will be restricted so that future residential use will not be permitted. This is consistent with the preferred projected development for the area, according to the Comprehensive Plan for Escambia County.

Alternative 1 would not be effective in the long term since it would not limit exposure of residents in the Relocation Area to site contaminants and would not abate the effects on residents of the other site-related effects listed in Sections 4 and 9.

Reduction of Toxicity, Mobility or Volume

Since this is an interim action and no final remedy is being selected to address contaminated

soil, this criterion does not apply. The final remedy for the Site will address these criteria.

Short-Term Effectiveness

Alternative 2 will be effective in the short term as soon as the residents are removed from the Relocation Area.

Alternative 1 would not be effective in the short term since it would not limit exposure of residents in the Relocation Area to site contaminants and would not abate the effects on residents of the other site-related effects listed in Sections 4 and 9.

Implementability

Alternative 2 will be administratively complex, but is implementable. Following development of a Real Estate Planning Report, real estate acquisitions and relocation of the initial households will begin almost immediately. The completion of relocation and demolition activities are expected to take up to 3 years.

Alternative 1 would be implementable.

Cost

The estimated cost for Alternative 2 is \$23,577,101. The Agency has determined that the cost of the relocation is justified in order to prevent exposure of the residents to adverse effects at the Site in furtherance of the National Relocation Pilot project.

The cost of Alternative 1 is \$0.

8.3 MODIFYING CRITERIA

State Acceptance

The FDEP has concurred with this selected alternative.

FDEP would not accept Alternative 1.

Community Acceptance

The community has accepted this selected alternative.

The community would not accept Alternative 1.

9.0 SELECTED REMEDY

EPA has identified Alternative 2 - Permanent relocation of residents, as the selected interim action alternative for the site. This action addresses relocation of residents which have been determined by EPA to be within the area affected by contamination from the site and by the factors enumerated below. A description of these areas is found in Section 5 of this ROD. The major components of the selected remedy include:

- Permanent relocation of an estimated 358 households from the Rosewood Terrace subdivision, the Oak Park subdivision, the Escambia Arms Apartments, and the Goulding subdivision

- Properties will be purchased and residents relocated in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (URA).
- Once residents are relocated, homes will be demolished and access to the properties will be controlled, as necessary, to prevent further residential use.

The residents living in the area will be relocated because of the cumulative impacts of the following factors, not because of any single factor:

1. EPA has identified health risks, above the 10⁻⁴ risk level, due to the presence of contamination from dioxin and BaP in portions of the Relocation Area.
2. The adverse impacts on the residents of the Relocation Area from fear stemming from uncertainty relative to health impacts, loss of property values, and psychological stress, are difficult to quantify but are very real considerations. These concerns have arisen in part from the visibility of an extremely large stockpile of highly contaminated soil and two excavations of similar magnitude. The excavations and stockpile are the result of the 1991-92 removal action in the immediate vicinity of the Relocation Area.
3. In addition to the risks posed by contamination in substantial portions of the Relocation Area, final remediation activities on the site can be expected to further adversely affect the remainder of the Relocation Area with impacts such as truck traffic, noise, dust, et cetera.
4. Removing the residents in the Relocation Area will provide greater flexibility for final remedy selection with a significant potential for lowering overall project costs. The cost savings are enhanced by obviating the need to remediate soil in residential areas to residential risk levels.
5. The residential areas in the Relocation Area are discreet, well defined, and located in a commercial area. The existing land use and transportation infrastructure strongly indicates the appropriate use of the property is as industrial property. In addition, the relocation will provide land for industrial purposes that is valuable to the community from an economic development perspective.
6. There is a need to ensure that residents are not exposed to hazardous substances during remediation activities in the Relocation Area.
7. Heavy construction equipment and construction traffic during the final remedy could pose a physical hazard to residents, especially curious children.
8. The relocation will accommodate EPA's need for additional space for managing and implementing the construction of the final remedy for the site.

EPA's selected alternative satisfies the following statutory requirements of CERCLA:

- Protection of human health, welfare, and the environment
- Compliance with ARARS

To the extent practicable, EPA's preferred alternative utilizes permanent solutions and alternative treatment technologies. The statutory preference for remedies that employ treatments that reduce toxicity, mobility, or volume will be addressed by the final response

action for the site.

Finally, this alternative will provide the best balance among the nine criteria EPA is required to consider under the National Contingency Plan.

10.0 STATUTORY DETERMINATION

This interim action protects human health and welfare by relocating residents so as to prevent exposure to contaminated surface soil and it protects residents from the ancillary effects of conditions at the Site, as explained in more detail in Section 9. This interim action is not designed or expected to be final, but the selected remedy represents the best balance for tradeoffs among alternatives with respect to pertinent criteria, given the limited scope of the action. The statutory preference for treatment will be addressed in the final decision document for the Site.

11.0 EXPLANATION OF SIGNIFICANT CHANGES

In April, 1996 EPA issued a proposed plan for the Escambia Superfund Site and proposed a remedy for relocation of 66 households in the Rosewood Terrace Subdivision. The proposed remedy was intended to address contamination in the yards of 22 households and effects implementing the remedy on the remaining 44 households. In August, EPA announced that it intended to expand the relocation to encompass the Oak Park Subdivision, thus adding an additional 35 households. The expansion was proposed in recognition of the isolating effect the Rosewood Terrace subdivision relocation would have on the single family homes of the Oak Park community and the community's concerns regarding the contamination at the site.

This ROD further expands the relocation to add the Escambia Arms Apartment complex and the Goulding subdivision, approximately an additional 257 households for a total of approximately 358. This decision is based on an evaluation of the public comments and the factors listed in Section 9.

APPENDIX A

RESPONSIVENESS SUMMARY

There were several comments and questions regarding EPA's initial proposal to conduct only a partial relocation. Concerns about the impact of the initially proposed relocation on the Escambia Arms apartments and on the Goulding subdivision have been addressed in this decision document. In particular, the Explanation of Significant Changes section in this ROD provides a resolution to these concerns. The following are EPA's responses to other questions and comments which were submitted.

Comment 1: Why didn't EPA bring up the issue that more testing was required to make a decision about the Goulding subdivision prior to the issuance of the amended proposed plan?

EPA Response: At the time of the issuance of the amended proposed plan, EPA had not determined that the nexus between contaminant concentrations in the subdivision and the site existed. Since then, EPA has received additional information and taken several factors into consideration, as enumerated in Section 9 of the ROD, to determine an appropriate remedial response.

Comment 2: The proposed plan failed to mention the Agrico Superfund Site.

EPA Response: The proposed interim action was developed to mitigate human health risk related to the release of contamination to the residential areas that appear to be related to the Escambia Superfund site. No contaminants of concern were detected which appear to be a result of a release from the Agrico site.

Comment 3: The proposed plan does not address synergistic effect of chemical exposure.

EPA Response: For the contaminants for which EPA has information there has been no evidence of synergistic effects. Therefore, synergistic effects are not evaluated during the risk assessment process. However, EPA's conservative approach to conducting risk assessments does assume additive effects. At this interim stage in the process, the risk assessment for this site has not been done. The risk assessment will be completed in the later stages of the remedial investigation.

Comment 4: The proposed plan does not address the non-cancer health risks from dioxin.

EPA Response: Non-cancer health effects will be addressed in the risk assessment for the site and will be reflected in the final ROD for the site.

Comment 5: What specific technical facts have been used by EPA to refuse to include dieldrin as a COC?

EPA Response: Dieldrin was not identified in the initial Proposed Plan or its addendum because the data that had been collected to date did not indicate that dieldrin was associated with the release from the Site.

Comment 6: Why was dieldrin not included in the estimates of health risk? Is there any guidance directing EPA to ignore chemicals found at a site because of uncertainty about the origins of the contaminant?

EPA Response: Only contaminants of concern which result from the release from the site are used in the health risk calculation for the site. Dieldrin has not been associated with the

release.

Comment 7: Why has EPA not presented data on exceedence of 10E-4 and 10E-6 cumulative risk, even though EPA has referred, to cumulative risk?

EPA Response: In the early stages of the remedial investigation, preliminary remediation goals were developed for individual contaminants. Cumulative risks will be determined in the risk assessment.

Comment 8: Does EPA disagree with CATE's calculation of cumulative risk for the Goulding area?

EPA Response: EPA has not reviewed the calculations submitted on August 15th. However, EPA will calculate cumulative risk during the risk assessment.

Comment 9: Are residents exposed to soil contaminants in and from areas other than their other places and ingesting contaminated soil while at other places?

EPA Response: EPA has no information upon which to base a conclusion on this issue.

Comment 10: Is 10E-6 level for dioxin 2 ppt?

EPA Response: At the 10E-6 level the preliminary remediation goal for dioxin was calculated to be 2 ppt.

Comment 11: Has EPA taken into consideration a sub-population consisting of former workers at the Escambia site that have had previous exposures to the same set of contaminants as in residential soil? What does the NCP and EPA guidance indicate is the appropriate procedure?

EPA Response: At this point EPA has not taken into consideration a sub-population consisting of former workers. However, depending on site specific demographic conditions, it may be an appropriate consideration for the risk assessment.

Comment 12: Why has EPA not taken a removal action for the residents living on soil which exceed 10E-4, including data from 1992?

EPA Response: The data from 1992 did not show substantial contamination in the residential community above levels of concern at that time.

Comment 13: To what extent has EPA paid attention to the information provided by the Precision Machining Company about releases of hazardous substances from the Escambia site.

EPA Response: The issues of contaminant migration from the ETC site to Palafox Industrial Park, in which Precision Machining Company resides, has been investigated. To date no site related surface contamination has been detected.

Comment 14: How long will the relocation take?

EPA Response: Once the groundwork (relocation and real estate planning report) is done it may take up to three years.

Comment 15: What will be done with the property that EPA buys?

EPA Response: It will be turned over to the State of Florida.

Comment 16: The State of Florida requires that Cleanup goals should be based on the 10^{-6} risk reduction. EPA's remedy departs from this goal.

EPA Response: For this interim action, EPA has not developed specific cleanup goals. Final remediation goals will be developed in the final ROD for the site.